

[54] **COLLAGEN REPLACEMENT PROTHESIS FOR THE CORNEA**

[75] Inventors: **Romaine R. Bruns, Norwood;**
Jerome Gross, Waban, both of Mass.

[73] Assignee: **Massachusetts General Hospital,**
Boston, Mass.

[21] Appl. No.: **683,134**

[22] Filed: **Dec. 18, 1984**

Related U.S. Application Data

[62] Division of Ser. No. 431,578, Sep. 30, 1982, Pat. No. 4,505,855.

[51] Int. Cl.⁴ **A61F 2/14**

[52] U.S. Cl. **623/5; 128/DIG. 8;**
623/4

[58] Field of Search **3/13, 1; 128/DIG. 8**

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,223,984 9/1980 Miyata et al. 128/DIG. 8 X

4,298,004 11/1981 Schachar et al. 128/DIG. 8 X
4,427,808 1/1984 Stöl et al. 524/24

Primary Examiner—Richard J. Apley

Assistant Examiner—Alan W. Cannon

Attorney, Agent, or Firm—David G. Conlin; George W. Neuner

[57] ABSTRACT

This invention relates to a prosthetic replacement for the cornea and particularly to a transparent collagen material useful for making such a prosthesis and to methods for making such transparent collagen material. The prosthesis is preferably composed of a native, non-fibrilized, transparent collagen material formed from a soluble collagen solution by ultracentrifuging to form a pellet and fixing the same pellet, whereby the collagen material has less than 5% absorbance of light at 900 nm for a 5 mm thick sample and comprises polyhydroxyethylmethacrylate or vitrosin, in a range of from 0.01 to 50.0 percent by weight, based on the collagen protein.

4 Claims, 1 Drawing Figure

